DOCUMENT RESUME

ED 070 391 HE 003 622

AUTHOR	Behrens, Anna Jo W.
TITLE	Higher Education with Fewer Teachers: Some Examples of Current Practice.
INSTITUTION	Academy for Educational Development, Inc., Washington, D. C. Management Div.
PUB DATE	Oct 72
NOTE	51p.
AVAILABLE FROM	Management Division, Academy for Educational Development, Inc., 1424 16th Street, N.W., Washington, D.C. 20036
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Class Size; Educational Finance; *Educational Quality; Financial Problems; *Higher Education; *Student Teacher Ratio; *Teaching Quality

ABSTRACT

During the 1960's financial problems began to infiltrate colleges and universities across the country. Demands began to pour in for higher student/faculty ratios in order to cut back the educational costs. Despite arguments that such action would decrease the quality of higher education, many colleges and universities increased their class size. The results, as found by a Carnegie Commission study group, indicate that the number of students sitting before a faculty member in a classroom has little to do directly with the quality of the educational results achieved. Educational quality depends upon the availability to topnotch students and teachers, and the use of excellent instructional methods; upon the efforts and interests of students; and upon the constant interaction of students and faculty members. (HS)

HIGHER EDUCATION WITH FEWER TEACHERS

ED 070391

Some Examples of
Current Practice

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OCTOBER 1972

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ED 070391

HIGHER EDUCATION WITH FEWER TEACHERS

Some Examples of Current Practice

By
Anna Jo W. Behrens

Management Division
Academy for Educational Development, Inc.
October 1972

Numerous possibilities exist for providing higher quality education with fewer teachers in relation to the number of students. . . .

The issue is no longer one of class size. In fact, the concept of class size is archaic. The issue instead is one of how to use the whole range of possibilities to bring the best instruction to the student: independent study, individual instruction and counseling, laboratory work and practice, small class discussions, large class demonstrations and lectures, television with the ablest professors reaching thousands of students, and motion pictures which will bring the greatest teachers to successive generations of students.

All these possibilities along with the reorganization of the curriculum must be considered in relation to the objectives of the college. Clusters of people and clusters of jobs must be related to clusters of objectives. This would be a modern approach to college instruction.

Alvin C. Eurich, then Vice President,
Fund for the Advancement of Education,
at the Eleventh National
Conference on Higher Education,
Chicago, March 6, 1956.

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FOREWORD

Thirteen years ago Dr. Beardsley Ruml, then an educational planner and consultant, told colleges and universities that one road to financial stability and better salaries lay in higher student/faculty ratios.

But they didn't want to listen!

They wanted no part of the Ruml ideas and proposals!

They saw a higher education boom coming, and they wanted increased salaries and lower teaching loads!

For a number of years they achieved these objectives. How did it happen? The answer: greater income. Receipts in general and special accounts increased by 275 per cent between 1959 and 1969, at a time when student enrollments rose by only 125 per cent. Faculty salaries increased by 75 per cent on the average; fringe benefits were extended.

Starting in 1969 or thereabouts (depending upon the institution) the situation began to change. Money was harder to get and enrollments at many institutions leveled off. The problems became: how to cut expenses; how to reduce faculty and staff; how to work harder and longer. These problems were not limited to the average or to the impecunious institution. Prestige colleges and universities were feeling the financial pressure, too.

The question: What to do? A partial answer: increase student/faculty ratios, but do it unobtrusively. And this happened. The Carnegie Commission on Higher Education found recently that student/faculty ratios rose in most kinds of institutions during the 1960s. The Commission also found (in contrast to the conventional wisdom) that there had been "no apparent adverse effect on quality." An old concept had now become clearer; that is, within broad limits the number of students sitting before a faculty member in a classroom has little to do directly with the quality of the educational results achieved. Educational quality depends upon the availability of topnotch students and teachers, and the use of excellent instructional methods; upon the efforts and interests of students; and upon the constant interaction of students with faculty members.

It is against this background that the Academy has prepared this booklet on higher education institutions in which the student/faculty ratio is 20 to 1 or

above. The booklet doesn't urge or advocate a point of view. Its purpose is to provide examples of actual practice at the present time.

The funds for this project were supplied by the Esso Education Foundation. Some useful statistics, materials, and insights were provided by the United States Office of Education and the American Bar Association. Most of the data summarized in this booklet were obtained directly from the institutions involved. The Academy thanks all participants for their cooperation. The conclusions are, of course, those of the author alone.

Alvin C. Eurich, President
Academy for Educational Development, Inc.

FINDINGS

1. Today at least 80 four-year colleges and universities and 34 of the larger law schools have student/faculty ratios of 20 to 1 or above. The average student/faculty ratio for the country as a whole is about 13.5 to 1.

2. Administrators at the institutions involved believe that the quality of education has never been higher than it is today. They say that the increase in the ratios during the past five years or more has not impaired the effectiveness of the education provided.

   Note: These were subjective views, obviously, but the study team observed that they were expressed frequently by the same type of academic executive who, a decade earlier, had seen the problem of maintaining quality of education as a serious deterrent to effectively increasing class size.

3. Administrators at the institutions involved also believe that the students in these colleges and universities are as well satisfied with faculty attention and performance with student/faculty ratios of 20 to 1 or above as are students in institutions where ratios are lower. Said one:

   > The real trick is to develop an exciting and stimulating class. The faculty member who can do this in introductory biology, for example, can do it as well for 100 students as for ten. There is no doubt that small classes have their place, particularly at the graduate level. But lectures to a small class are a waste of resources.

   And to quote a long-time observer of the higher education scene:

   > All the small class lecture really does is enable the faculty member to deliver a mediocre talk in an intimate environment.

4. The main reason for higher student/faculty ratios today is the nationwide budget squeeze affecting nearly all institutions of higher learning. This was the report from colleges and universities of all kinds, public and private, large and small.

5. In a number of states, public pressures have encouraged state higher education boards and state legislatures to mandate the establishment of a higher student/faculty ratio. For example, in:

Arizona: The state Board of Regents established a ratio of one *new* faculty member for each 22 *new* students enrolled.

Kansas: The state Board of Regents established a 20 to 1 student/faculty position ratio.

Montana: The state Board of Education established a student/faculty position ratio ranging from 19 to 1 to 21 to 1 for the various state colleges and universities.

New Mexico: The state Board of Educational Finance established a 24 to 1 student/faculty position ratio.

6. In a number of other states, state financing patterns are based on student/faculty ratios which differ at the various levels of instruction. For example, in:

Missouri: The state Commission on Higher Education established student/faculty position ratios of 22 to 1 for the lower division, 18 to 1 for the upper division, and 12 to 1 for the graduate division.

Minnesota: Fall 1971 funds for state colleges were appropriated on the basis of a 19 to 1 student/faculty ratio at the undergraduate level and a 13 to 1 ratio at the graduate level (including service and support positions).

7. In New York and Ohio, the legislatures considered bills in recent sessions that would incorporate into law higher standards for faculty teaching loads at state-supported institutions. Although the bills were not finally enacted in these states, the legislatures left no doubt as to their intent to reconsider soon the need for clearly spelled out higher standards if the institutions did not set some themselves.

   In California, the Governor's 1972-73 budget for higher education was based on student/faculty ratios which are considerably higher than those now existing. The average used for University of California campuses was a 17.4 to 1 ratio, and for the state college system an 18.25 to 1 ratio.

8. A wide variety of techniques are being used today to push student/faculty ratios upward. None of these seem to be particularly new or dramatic, but for the first time they are being used countrywide in a substantial way instead of just being discussed. Nineteen common techniques are listed in the box that follows:

Nineteen Ways Colleges and Universities are Increasing the Student/Faculty Ratio

Larger Classes

- Establishing large lecture classes with from 200 to over 1,000 students enrolled in such courses as:
  - Anthropology
  - Biology
  - Chemistry
  - Comparative Religion
  - English Literature
  - Fine Arts Appreciation
  - Fundamental Social Problems
  - General Education
  - Geography
  - Geology
  - Health Education
  - History
  - History of Civilization
  - Orientation to Special Education
  - Philosophy
  - Political Science
  - Psychology
  - Sociology
  - Speech
- Using closed-circuit educational television for courses enrolling as many as 2,000 to 3,000 students; tying together a number of classrooms.
- Increasing class size across the board, including upper-division classes.
- Increasing size of lower-division classes in order to have smaller upper-division and graduate courses.
- Keeping all classes filled, equalizing section enrollments, canceling classes with small enrollments.
- Having instructors balance small classes with large classes.
- Offering required courses with small enrollments only in alternate quarters, semesters, or years.
- Requiring students to take a certain percentage of introductory courses (General Studies) in large lecture sessions.

Proliferation of Courses

- Restructuring curriculum to meet new student interests, eliminating small classes in areas in which student interest has declined.
- Reducing number of course offerings; avoiding course proliferation.
- Consolidating basic courses duplicated in several departments.
- Phasing out disciplines with small classes, particularly languages.

Other Measures

- Using educational radio again (one institution reported 1,000 students had passed radio courses in the last three years).
- Using extensively other types of audio-visual materials such as slides, filmstrips, tapes, films, etc; also computer programming.
- Establishing and using intensively learning centers and laboratories.
- Using programmed instruction (one institution enrolled 600 students in an introductory biology course. Three faculty members assisted students, who worked at their own pace. Course could be completed in less than a semester; pretesting permitted them to begin above the lowest competency level).
- Granting credit for course work taken over commercial television and tested on campus.
- Granting credit by examination for subject material learned outside of college (for example, languages and some parts of business administration).
- Reducing number of credit hours required for graduation.

9. Administrators contacted in this study noted frequently that high student/faculty ratios and the size of classes were related to a large extent to the level of course offerings. Lower-division classes, for example, are larger on the average than upper-division classes, which in turn tend to be larger than graduate classes. For example, at the University of Florida:

The ratio for the University as a whole was	19:1
For lower-division undergraduate programs	28:1
For upper-division undergraduate programs	18:1
For beginning graduate programs	18:1
For advanced graduate programs	7:1

10. Many administrators also emphasized that an important factor in making possible higher student/faculty ratios has been the concentration of today's students in nontechnical subject areas, notably social sciences and business, in which large classes are generally more feasible than, for example, in physical sciences and math. In some cases large lecture classes are most suitable; in others TV and other audio-visual aids can be used most effectively.

11. Many of the institutions in the study emphasized that leveling with faculty about budget problems was the most important step that administrators had taken to persuade faculty of the need to achieve higher student/faculty ratios. Included in these efforts were such direct measures as:

- Involving faculty closely in budget planning, so they will be apprised early of budget problems.
- Increasing salaries only when faculty agree to larger classes.
- Hiring only faculty willing to teach relatively large classes.
- Determining with each department head the maximum feasible size of classes.
- Measuring faculty work loads and telling department chairmen how many students are needed per class in order to balance the budget.
- Enforcing full-time teaching load requirements.
- Increasing faculty teaching loads and contact hours especially when faculty are not expected to conduct research.

- Requiring administrators to teach full time or nearly full time.
- Not filling vacant faculty positions.
- Using more graduate and undergraduate assistants to lead small discussion groups and to take care of paper work; in some cases granting them course credit instead of paying them.
- Hiring part-time faculty when qualified people are available.

12. The study concentrated on institutions with student/faculty ratios of 20 to 1 or better. Included were the liberal arts colleges of the University of Minnesota and the University of Pittsburgh, the three Arizona state universities and Oklahoma State University, and the law schools at such universities as Harvard, Minnesota, Michigan, Texas, and California (Hastings College of Law). In addition, the study found that a number of institutions with low student/faculty ratios have been pushing recently toward higher ratios. For example, in one year Yale College increased its student/faculty ratio from 5 to 1 to 7 to 1; the College has had a serious budget squeeze for several years.

CONCLUDING NOTE TO THE FINDINGS

This study was conducted in the Spring of 1972 to verify the belief that:

- Many examples of student/faculty ratios of 20 to 1 or above could be assembled within a relatively short period of time.
- Faculty, students, and administrators at the institutions involved would agree that the higher ratios, over those existing, say, a decade ago, had not deteriorated the quality of education provided.

The study team assembled information on 125 educational units — 80 separate college and university campuses, an additional 11 colleges or schools within these institutions, and 34 law schools which were portions of large university systems. The team believed that further tabulations would not contribute substantially to the findings of the study.

MODELS OF THE POSSIBLE

In his book *Memo to a College Trustee** Beardsley Ruml argued that his goal of a 20 to 1 student/faculty ratio could provide quality education and better salaries than were then being paid. He proposed that the college curriculum combine large lecture courses averaging 90 - 300 students, small lecture-discussion courses averaging 45 - 90 students, and seminar-tutorials averaging 10 - 16 students. He drew up a number of alternative models of various class size combinations.

More recently, Howard R. Bowen and Gordon K. Douglass, in a book** for the Carnegie Commission on Higher Education, suggested an eclectic plan calling for a mixture of various methods of instruction "so that students can have varied experiences as they pursue their college careers and so that professors can teach in the manner that suits their talents and tastes." Three models are presented by these authors to indicate the savings in instructional budgets which might result from reducing proliferation of courses and increasing student/faculty ratios.

A model is of course only an abstraction. It is useful for exciting the imagination and for looking beyond the complexities, hurdles, constraints, and limitations of the present situation. But it is still a calculation that exists on paper and is submitted with the observation that it *ought* to work.

In the past only abstractions were available. Examples could not be assembled to show how any college or university or a portion of such an institution had actually achieved a 20 to 1 or similar student/faculty ratio.

Today some examples have worked out in practice. Ten are included here to show the range of possibilities. Included are institutions with enrollments between 1,100 and 24,000 students, and with student/faculty ratios between 20.7 to 1 and 32.3 to 1; with undergraduate and graduate students; and with lecture, discussion, laboratory, and seminar classes.

*Ruml, Beardsley with Donald H. Morrison, *Memo to a College Trustee:* Fund for the Advancement of Education, McGraw-Hill Book Company, New York, 1959.

**Bowen, Howard R. and Gordon K. Douglass, *Efficiency in Liberal Education:* Carnegie Commission on Higher Education, McGraw-Hill Book Company, New York, 1971.

Ten Examples of Class Size Distribution at Colleges and Universities Where the Student/Faculty Ratio is 20 to 1 or Above

(1)

UNIVERSITY OF ARIZONA (State)

Student/faculty ratio	22.1 to 1
Number of students	23,895
Per cent graduate students	23%
Class size distribution:	
1 - 10 students	545 classes
11 - 20 "	901 "
21 - 30 "	1,280 "
31 - 40 "	622 "
41 - 50 "	200 "
51 - 60 "	117 "
61 - 100 "	115 "
101 - 200 "	69 "
201 and over "	45 "
Total	3,894 classes

(2)

UNIVERSITY OF MINNESOTA (State)
College of Liberal Arts only

Student/faculty ratio	22.7 to 1
Number of students	19,572
Per cent graduate students	10%
Class size distribution:	
1 - 9 students	671 classes
10 - 19 "	506 "
20 - 29 "	673 "
30 - 49 "	381 "
50 - 69 "	109 "
70 - 99 "	49 "
100 - 299 "	106 "
300 and over "	20 "
Total	2,515 classes

(3)

EASTERN MICHIGAN UNIVERSITY (State)

Student/faculty ratio	21.0 to 1
Number of students	16,285
Per cent graduate students	19%
Class size distribution:	
1 - 9 students	603 classes
10 - 24 "	883 "
25 - 49 "	1,064 "
50 - 99 "	211 "
100 - 299 "	44 "
300 and over "	19 "
Total	2,824 classes

(4)

UNIVERSITY OF AKRON (State)

Student/faculty ratio	20.8 to 1
Number of students	14,950
Per cent graduate students	9%
Class size distribution:	
1 - 10 students	423 classes
11 - 20 "	592
21 - 50 "	1,207 "
51 - 100 "	128 "
101 - 200 "	56 "
201 - 350 "	11 "
600 and over "	2 "
Total	2,419 classes

(5)

UNIVERSITY OF NORTHERN IOWA (State)

Student/faculty ratio	21.5 to 1
Number of students	9,605
Per cent graduate students	10%
Class size distribution:	
1 - 10 students	261 classes
11 - 25	463 "
26 - 50 "	575 "
51 - 100 "	107 "
101 - 150 "	13 "
151 and over "	24 "
Total	1,443 classes

(6)

LOUISIANA TECH UNIVERSITY (State)

Student/faculty ratio	21.5 to 1
Number of students	7,850
Per cent graduate students	10%
Class size distribution:	
1 - 10 students	92 classes
11 - 20 "	262 "
21 - 30 "	641 "
31 - 40 "	186 "
41 - 50 "	29 "
51 and over "	23 "
Total	1,233 classes

(7)

BOISE STATE COLLEGE (State)

Student/faculty ratio	20.7 to 1
Number of students	5,992
Per cent graduate students	5%
Class size distribution:	
1 - 9 students	229 classes
10 - 19 "	323 "
20 - 29 "	278 "
30 - 39 "	120 "
40 - 49 "	64 "
50 and over "	72 "
Total	1,086 classes

(8)

METROPOLITAN STATE COLLEGE (State)

Student/faculty ratio	24.8 to 1
Number of students	6,659
Per cent graduate students	None
Class size distribution:	
0 - 9 students	66 classes
10 - 19 "	278 "
20 - 29 "	295 "
30 - 39 "	148 "
40 - 49 "	85 "
50 - 59 "	37 "
60 and over "	32 "
Total	941 classes

(9)

TROY STATE UNIVERSITY (State)

Student/faculty ratio	23.2 to 1
Number of students	3,200
Per cent graduate students	None
Class size distribution:	
1 - 10 students	53 classes
11 - 20 "	116 "
21 - 30 "	86 "
31 - 40 "	72 "
41 - 50 "	56 "
51 and over "	27 "
Total	410 classes

(10)

OKLAHOMA CHRISTIAN COLLEGE (Private)

Student/faculty	32.3 to 1
Number of students	1,132
Per cent graduate students	None
Class size distribution:	
1 - 10 students	37 classes
11 - 20 "	61 "
21 - 30 "	33 "
31 - 100 "	35 "
101 - 200 "	10 "
201 and over "	4 "
Total	180 classes

GUIDES TO ACTION

The proposal in this report is that colleges and universities everywhere examine the possible models, and then consider their applicability to their own institutions.

The Academy holds no brief for the particular models or examples in this report. They show only what has been possible at the particular institutions involved. For every other institution the achievement of the possible is a management problem which has to be tailored to local requirements and needs. Planning is required at the very heart of the academic enterprise; also required is cooperative effort to an extent not previously achieved by faculty, administrators, students, trustees, and the general public.

During the past several years a number of studies have dealt with the arrangement of curricula and the possibilities of higher student/faculty ratios, a smaller number of course offerings, etc. For administrators and faculty wishing to pursue the matter further the following references might be helpful:

Bowen, Howard R. and Gordon K. Douglass, *Efficiency in Liberal Education:* Carnegie Commission on Higher Education, McGraw-Hill Book Company, New York, 1971.

Carnegie Commission on Higher Education, *The More Effective Use of Resources, An Imperative for Higher Education:* McGraw-Hill Book Company, New York, June 1972.

McGrath, Earl J., *Memo to a College Faculty Member:* The Institute of Higher Education, Bureau of Publications, Teachers College, Columbia University, 1961.

Ruml, Beardsley with Donald H. Morrison, *Memo to a College Trustee:* Fund for the Advancement of Education, McGraw-Hill Book Company, New York, 1959.

The Study Group on Yale College, *Report of the Study Group on Yale College:* New Haven, Connecticut, April 1972.

STATISTICAL NOTES

1. This study was limited to four-year colleges and universities and to law schools. Two-year community and junior colleges were excluded. They have relatively high student/faculty ratios, but their goals differ from those of four-year colleges and universities and their inclusion in the study would have distorted the analysis. (The Carnegie Commission on Higher Education report cited earlier said that student/faculty ratios at public two-year colleges have changed little in recent years and ratios at private two-year colleges have actually declined.)
2. Generally the data are for the Fall of 1971. In a few cases, 1970 data were the latest available and they were used.
3. The terms "students" and "faculty" mean full-time equivalent. However, the study staff noted some differences in the definition as used by the various colleges and universities contacted. These are not believed to be great enough to affect the validity or compatibility of the data in this report.
4. Teaching assistants are included under the formulae used at the various institutions. Some major universities, for example, count four half-time graduate-student assistants as equivalent to one full-time faculty member.
5. The 80 four-year colleges and universities for which data have been assembled consist of 13 state and state-related universities, 45 state colleges, one municipal university, and 21 private colleges. In the aggregate these institutions enrolled 477,555 full-time equivalent resident degree-credit students, or nearly 10 per cent of the total enrolled in all of the four-year colleges and universities in the country.
6. The 34 law schools for which data have been assembled comprise more than 35 per cent of the law schools offering day sessions only and include more than 50 per cent of the enrollments in such law schools.

APPENDIX TABLES

Appendix I summarizes the data assembled for the 80 colleges and universities and the 34 law schools. Appendix II provides further information on student/faculty ratios at the 80 colleges and universities. Appendix III presents data on how budget savings might be achieved by increasing student/faculty ratios.

APPENDIX I — SUMMARY DATA

TABLE A
Colleges and Universities Reporting Student/Faculty Ratios of 20 to 1 or Above
Fall 1971

STATE UNIVERSITIES
Arizona State
Indiana - Purdue at Indianapolis
Louisiana Tech
Miami (Ohio) (Main Campus)
Northern Arizona
Oklahoma State
Sam Houston State
University of Akron
University of Arizona
University of Minnesota (Minneapolis-St. Paul) College of Liberal Arts
University of Northern Colorado
University of Pittsburgh (Main Campus) Faculty of Arts & Sciences and School of General Studies
University of South Florida

STATE COLLEGES
Alabama State
Alcorn A&M
Boise State
Central Michigan
Central Missouri State
Central State (Okla.)
East Central State (Okla.)
Eastern Michigan
Eastern Montana
Grand Valley State
Florida A&M

STATE COLLEGES (Continued)
Florida Tech
Indiana State at Evansville
Jacksonville State (Ala.)
Kansas State Teachers
Metropolitan State (Colo.)
Minot State
New Mexico Highlands
Newark State
Nicholls State
North Adams State
Northeastern State (Okla.)
Northwestern State (Okla.)
Pan American
Peru State
Plymouth State
St. Cloud State
Savannah State
Shepherd
Southeastern State (Okla.)
Southwest Missouri State
Southwest Texas State
Southwestern State (Okla.)
Sul Ross
Troy State
University of Arkansas at Little Rock
University of Minnesota (Morris)
University of Northern Iowa
University of Pittsburgh at Johnstown
University of Texas at El Paso

STATE COLLEGES (Continued)
University of Wisconsin - LaCrosse
Wayne State (Nebr.)
Weber State
Winona State
Wright State (Main Campus)

PRIVATE COLLEGES AND UNIVERSITIES
Atlantic Christian
Bentley
College of Steubenville
David Lipscomb
Ft. Lauderdale
Jacksonville (Fla.)
LaSalle
Lewis
Mississippi
Morris Harvey
Oglethorpe
Oklahoma Christian
Robert Morris
Roger Williams
Salem (W. Va.)
Suffolk
University of Baltimore
University of Dayton
University of Tampa
Wilberforce
Xavier (Ohio)

MUNICIPAL UNIVERSITY
Washburn

Note: Institutions offering doctoral degrees are included in state universities; institutions offering only lesser degrees are included in state colleges, although they may be designated as universities in their official titles.

TABLE B
34 Law Schools Reporting Student/Faculty Ratios of 20 to 1 or Above
Fall 1971

Institution	Number of Students (Full time)	Number of Faculty (Full-time Equivalent)	Student/ Faculty Ratio
Boston College	732	34	21.5 to 1
Boston University	1,162	41	28.3 to 1
Case Western Reserve University	532	23	23.1 to 1
Columbia University	1,034	48	21.5 to 1
Florida State University	494	19	26.0 to 1
Harvard University	1,922	63	30.5 to 1
Indiana University (Bloomington)	586	28	20.8 to 1
Louisiana State University	916	30	30.5 to 1
Rutgers University (Camden)	503	22	22.9 to 1
Southern Methodist University	629	23	27.3 to 1
Syracuse University	563	27	20.8 to 1
Tulane University	508	20	25.4 to 1
Union University Albany School of Law	609	17	35.8 to 1
University of Arizona	510	25	20.4 to 1
University of Arkansas	631	23	27.4 to 1
University of California Hastings College of Law	1,527	41	37.2 to 1
University of California (Los Angeles)	975	45	21.7 to 1
University of Florida	1,064	43	24.7 to 1
University of Georgia	578	27	21.4 to 1
University of Illinois	792	25	31.7 to 1
University of Iowa	544	27	20.1 to 1
University of Kentucky	521	21	24.8 to 1
University of Michigan	1,244	62	20.1 to 1
University of Minnesota	746	33	22.6 to 1
University of North Carolina	752	30	25.1 to 1
University of Notre Dame	499	24	20.1 to 1
University of Pennsylvania	657	32	20.5 to 1
University of Pittsburgh	526	22	23.9 to 1
University of South Carolina	742	28	26.5 to 1
University of Tennessee	540	21	25.7 to 1
University of Texas	1,671	48	34.8 to 1
University of Wisconsin	1,266	48	26.4 to 1
Villanova University	600	23	26.1 to 1
Washington University	566	24	23.6 to 1

Note: Data were derived from information published in the *Review of Legal Education, Fall 1971*, American Bar Association. The law schools offer day classes only; all students are full time. Full-time equivalent faculty were computed by considering part-time faculty as equivalent to one-third of a full-time faculty member.

TABLE C
Analysis of Fall 1971 Data Assembled
for 80 Liberal Arts Colleges and Universities

Number of Students Enrolled	Number of Institutions Reporting	Student/Faculty Ratio	Number of Institutions Reporting
Under 1,000	3	20 - 20.9 to 1	17
1,000 - 1,999	13	21 - 21.9 to 1	21
2,000 - 2,999	15	22 - 23.9 to 1	23
3,000 - 3,999	10	24 - 25.9 to 1	6
4,000 - 4,999	4	26 - 29.9 to 1	10
5,000 - 9,999	22	30 and over to 1	3
10,000 and over	13		
Total	80	Total	80

TABLE D
Analysis of Fall 1971 Data Assembled
for 34 Schools of Law

Number of Students Enrolled	Number of Institutions Reporting	Student/Faculty Ratio	Number of Institutions Reporting
Under 600	14	20 - 20.9 to 1	7
600 - 799	10	21 - 21.9 to 1	4
800 - 999	2	22 - 23.9 to 1	5
1,000 - 1,499	5	24 - 25.9 to 1	5
1,500 and over	3	26 - 29.9 to 1	7
		30 and over to 1	6
Total	34	Total	34

APPENDIX II — DETAILED INFORMATION FOR 80 COLLEGES AND UNIVERSITIES

ALABAMA STATE UNIVERSITY

Montgomery, Alabama 36104

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,644	116	22.8:1	Undergraduate: 12-15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	12%

Remarks

Largest lecture classes in history and biology, about 75 students.

Use audio-visual aids as teaching supplement; no TV.

For Additional Information

Dr. Robert D. Reid, Vice President for Academic Affairs

ALCORN AGRICULTURAL AND MECHANICAL COLLEGE

Lorman, Mississippi 39096

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,777	120	23.1:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Trend toward nontechnical areas (such as business and social sciences) as opposed to such areas as mathematics and chemistry permits use of large classes.

For Additional Information

Mr. David W. Wilburn, Registrar

ARIZONA STATE UNIVERSITY

Tempe, Arizona 85281

Fall 1971

	Students	Faculty	Ratio	Faculty Load
University	23,277	862	27.1:1	12 hours
College of Business Administration	3,267	88	37.1:1	12 hours
Graduate School of Social Service Administration	215	6	35.8:1	12 hours
College of Liberal Arts	11,275	360	31.3:1	12 hours
College of Education	3,345	113	29.6:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree*	21% (University)

Remarks

Board of Regents allots *new* faculty positions on basis of 22:1 ratio.

Unable to hire new faculty because of budget restrictions; enrollments growing rapidly.

Large class sections in lower and upper divisions; some upper-division classes have 65-75 students.

Quality of learning not impaired but poor students may not be getting as much as they should. Good students appear to do as well as similar students at universities with lower ratios.

*University. Not all Colleges offer doctoral degree.

For Additional Information

Mr. T. Tilman Crance, Director of Budgets and Institutional Studies

Dr. William R. Gable, Executive Coordinator, Arizona Board of Regents, Phoenix

ATLANTIC CHRISTIAN COLLEGE

Wilson, North Carolina 27893

Fall 1971

Students	Faculty	Ratio	Faculty Load
1,685	82	20.5:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks

Faculty accepted larger classes in order to get salary increases.

Class sizes: business classes, up to 45 students; religion classes, up to 85 students.

Ratio up slightly from Fall 1970.

For Additional Information

Dr. Arthur D. Wenger, President

BENTLEY COLLEGE

Waltham, Massachusetts 02154

Fall 1971

Students	Faculty	Ratio	Faculty Load
1,912	68	28.1:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks

95% of enrollments in business and accounting.

Largest classes in accounting, 60 students.

Arts and sciences courses are principally survey courses, maximum size, 40 students.

Ratio increased from 22:1 in Fall 1970.

For Additional Information

Dean John T. Nichol, Dean of College

BOISE STATE COLLEGE

Boise, Idaho 83707

Fall 1971

Students	Faculty	Ratio	Faculty Load
5,992	290	20.7:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

Both financial squeeze and rapid increase in enrollments have occurred in recent years.

Enthusiastic faculty has been major factor in handling problem.

Little emphasis on research and graduate programs allows faculty more time for large classes.

Lack of money prohibits development of audio-visual techniques to reduce faculty load.

Ratio has remained nearly constant for 3-4 years.

For Additional Information

Mr. Herbert W. Runner, Administrative Assistant to the Executive Vice President

CENTRAL MICHIGAN UNIVERSITY

Mt. Pleasant, Michigan 48858

Fall 1970

Students	Faculty	Ratio	Faculty Load
13,008	616	21.1:1	11 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	10%

Remarks

Used TV for a long time (speech, biology, health education); classes of 300-500 students.

Large lecture classes, 100-500 students.

In statistics, combine disciplines for introductory course.

Extensive use of graduate assistants.

For Additional Information

Dr. Ernest L. Minelli, Vice Provost for Institutional Research

CENTRAL MISSOURI STATE COLLEGE

Warrensburg, Missouri 60493

Fall 1971

Students	Faculty	Ratio	Faculty Load
12,344	550	22.4:1	Undergraduate: 15 hours Graduate: 12-13 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	25%

Remarks

Restructured curriculum in all but a few departments; this provided faculty positions for growing departments, e.g., 3 years ago English department had 40 faculty, next year will have 29.

Not filling all vacant faculty positions.

A few closed-circuit TV classes, up to 200 students; basic lecture over TV; instructor in each of 5 classrooms of 30-40 students.

Largest standard class size, 50-60 students.

Ratio increased from 20.8:1 in Fall 1970.

For Additional Information

Dr. Roy E. McAuley, Vice President for Academic Affairs

CENTRAL STATE COLLEGE

Edmond, Oklahoma 73034

Fall 1970

Students	Faculty	Ratio	Faculty Load
8,474	336	25.2:1	12-14 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	3%

Remarks

Class size range, 6-70 students; average class size, 27.5 students.

Do not use TV or graduate assistants.

For Additional Information

Dr. Joe C. Jackson, Vice President for Academic Affairs

COLLEGE OF STEUBENVILLE

Steubenville, Ohio 43952 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
1,160	51	22.7:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks

Reduced faculty from 68 in Fall 1970 to 51 in Fall 1971 by not filling faculty vacancies.

Increased faculty load from 12 to 15 hours (department heads previously taught 9 hours).

Reduced credit hours required for graduation from 128 to 124; will reduce to 120 in Fall 1972.

Some large lecture classes.

For Additional Information

Mr. Irwin Fluharty, Assistant to the President

DAVID LIPSCOMB COLLEGE

Nashville, Tennessee 37203 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
2,263	102	22.2:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks

Class sizes: freshman history, up to 100 students; general lecture courses, 30-40 students.

Trying to increase size of upper-division courses.

Ratio ranged from 17:1 to 22:1 over past ten years; goal is 25:1, for economic reasons.

For Additional Information

Mr. Ralph R. Bryant, Registrar

EAST CENTRAL STATE COLLEGE

Ada, Oklahoma 74820 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
2,641	107	24.7:1	16.7 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	2%

Remarks

Large classes on voluntary basis by departments and faculty members; faculty get double-credit time.

Four lecture halls hold 150-260 students; used for geography, sociology, history, humanities, art.

Closed-circuit TV with classes as large as 300 students; talk-back facilities between showing room and 10 classrooms, holding 30 students each; used for American history, sociology, geography.

Class size range, 4-90 students; average class size, 25.5 students.

For Additional Information

Dr. Bill Tillman, Academic Vice President

EASTERN MICHIGAN UNIVERSITY

Ypsilanti, Michigan 48197

Fall 1971

Students	Faculty	Ratio	Faculty Load
16,285	774	21.0:1	12-15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's and Education Specialist Degrees	19%

Remarks

Not filling all tenured faculty vacancies. Use part-time faculty from Ann Arbor and Detroit at somewhat lower salaries than paid full-time personnel.

Very large lower-division lecture classes once or twice a week, followed by small discussion groups. Comparative Religion, History of Civilization, General Psychology, English Literature and Special Education classes have 300-450 students. Other large lecture classes (geography, business courses, anthropology, political science, sociology, and home economics) have 50-180 students.

Learning laboratory in biology with tapes available from 8 a.m. to 10 p.m., graduate assistants in charge.

For Additional Information

Dr. Bruce Nelson, Vice President for Instruction

EASTERN MONTANA COLLEGE

Billings, Montana 59101

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,216	158	20.3:1	13 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	Mostly in summer session

Remarks

State Board of Education has established a 21:1 faculty-position ratio for Eastern Montana College.

About a dozen classes of 100 students and slightly over; two classes of about 200 students.

Ratio down from 22.9:1 in 1970 because of sharp drop in enrollments and small decline in number of faculty.

For Additional Information

Dr. Harold McCleave, Academic Vice President

FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

Tallahassee, Florida 32307

1971-1972

Students	Faculty	Ratio	Faculty Load
4,436	207	21.4:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

System-wide productivity standards applied by discipline category and level of instruction in generating faculty positions.

For Additional Information

Dr. C. J. Carter, Associate Director, State University System, Tallahassee, Florida

FLORIDA TECHNOLOGICAL UNIVERSITY

Orlando, Florida 32816

1971-1972

Students	Faculty	Ratio	Faculty Load
5,593	269	20.8:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	3%

Remarks
System-wide productivity standards applied by discipline category and level of instruction in generating faculty positions.

For Additional Information
Dr. C. J. Carter, Associate Director, State University System, Tallahassee, Florida

FORT LAUDERDALE UNIVERSITY

Fort Lauderdale, Florida 33301

Fall 1971

Students	Faculty	Ratio	Faculty Load
625	24	26.0:1	16 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Master's Degree	Negligible

Remarks
Declining enrollments, release faculty (they are nontenured).

Largest class, 45 students.

Try to keep classes full.

For Additional Information
Dr. Homer M. Ledbetter, Vice President for Academic Affairs

GRAND VALLEY STATE COLLEGE

Allendale, Michigan 49401

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,899	173	22.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks
State-imposed regulation on faculty loads; appropriation cut if not met.

Large lecture classes in College of Arts and Sciences in required General Studies courses (math and science, humanities, social studies), 250-300 students.

In order to maintain a particular small class, e.g. Russian, have same instructor teach a large, related popular class.

For Additional Information
Mr. Arthur C. Hills, Vice President for Administration and Chief Academic Officer

INDIANA STATE UNIVERSITY AT EVANSVILLE

Evansville, Indiana 47712

Fall 1970

Students	Faculty	Ratio	Faculty Load
1,735	65	26.7:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Some large lecture classes; fourteen classes (4% of total) have more than 100 students.

Average class size, 40 students.

For Additional Information

Mr. John L. Deem, Registrar

INDIANA UNIVERSITY — PURDUE UNIVERSITY AT INDIANAPOLIS

Indianapolis, Indiana 46202

Fall 1971

Students	Faculty	Ratio	Faculty Load
9,401*	354*	26.6:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	16%

Remarks

Indianapolis campuses of Indiana and Purdue consolidated in 1970, with Indiana having control over Liberal Arts and Humanities, Purdue having control over more technical areas, such as Natural Sciences and Engineering; physical management and budgetary control in hands of Indiana.

Severely hit this biennum by inadequate budget in face of increasing enrollments and costs.

Average class size has increased to 26 students.

Have had radio for 40 years; used extensively only in past 3 years when 1,000 students have taken and passed courses.

Closed-circuit TV network links Lafayette (Purdue main campus) and regional campuses.

Technical laboratories for freshmen and sophomores cut.

Engineering School reduced required credit hours for graduation from 150 to 130 hours.

Credit given by examination in some courses.

*Excludes Schools of Dentistry, Law, and Medicine.

For Additional Information

Dr. Jack Ryder, Vice Chancellor and Dean for Academic Affairs

JACKSONVILLE STATE UNIVERSITY

Jacksonville, Alabama 36265

Fall 1971

Students	Faculty	Ratio	Faculty Load
5,371	242	22.2:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

Largest lecture courses, 45-50 students.

Ratio has always been high.

For Additional Information

Dr. Theron E. Montgomery, Jr., Vice President for Academic Affairs

JACKSONVILLE UNIVERSITY

Jacksonville, Florida 32211

Fall 1970

Students	Faculty	Ratio	Faculty Load
2,543	118	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Master's Degree	Teachers doing part-time graduate work

Remarks

Largest class is freshman biology, 60 students.

Try to keep all classes filled.

Ratio has been fairly stable for past 5 years.

For Additional Information

Dr. Sam H. Frank, Associate Dean of Faculties

KANSAS STATE TEACHERS COLLEGE

Emporia, Kansas 66801

Fall 1971

Students	Faculty	Ratio	Faculty Load
6,530	292	22.4:1	Undergraduate: 12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's and Education Specialist Degrees	15%

Remarks

Kansas Board of Regents has established a faculty-position ratio of 20:1.

Largest class is an introductory biology course which enrolls 600 students. Programmed text is used; students are pretested to determine their competency level and work at their own pace, so they may complete the course in less than a semester; three faculty members are available to assist students.

A course in General Education has up to 400 students; other relatively large classes are in Art and Music Exploration, Fundamentals of Mathematics, Introduction to Psychology, pre-preparatory courses in teacher education.

Largest enrollments are in business and psychology which generally are suitable for large classes.

Cancel very small classes.

For Additional Information

Dr. J. Stanley Laughlin, Director, Office of Institutional Studies

LA SALLE COLLEGE

Philadelphia, Pennsylvania 19141

Fall 1970

Students	Faculty	Ratio	Faculty Load
4,712	231	20.4:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Master's Degree	Less than 10%

Remarks

Largest class, about 45 students.

Graduate offerings are in religious education.

For Additional Information

Mr. David J. Smith, Registrar

LEWIS COLLEGE

Lockport, Illinois 60441

Fall 1970

Students	Faculty	Ratio	Faculty Load
1,798	80	22.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks

Large lecture classes in some disciplines including accounting and psychology.

Faculty members with small sections in advanced courses are asked to take larger sections in introductory courses, e.g., Spanish.

Use of students to conduct small groups and to correct papers.

Because of financial problems have not been able to hire additional faculty, resulting in an increase in the ratio from 1970 to 1971.

For Additional Information

Brother Leo Skrubas, Registrar

LOUISIANA TECH UNIVERSITY

Ruston, Louisiana 71270

Fall 1971

Students	Faculty	Ratio	Faculty Load
7,850	365	21.5:1	No standard

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	10%

Remarks

Large classes in some areas to permit smaller classes where needed.

Largest classes in lower-division courses, ranging from 50-159 students.

Almost all classes are taught by faculty, not by graduate assistants.

Some "management" by necessity rather than desire.

For Additional Information

Dr. Virgil Orr, Vice President for Academic Affairs

METROPOLITAN STATE COLLEGE

Denver, Colorado 80204

1971-1972

Students	Faculty	Ratio	Faculty Load
6,659	268	24.8:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

College has been given 18:1 faculty-position ratio by state, but has not been given funds to achieve it; releasing some faculty next year.

Lecture classes, 80-100 students.

Consulting with department heads, one by one, to determine maximum feasible size of lecture courses, particularly introductory courses.

Ratio increased from 21.7:1 in 1970-1971.

For Additional Information

Dr. M. D. Sperlin, Assistant to the Dean of the College

MIAMI UNIVERSITY (Main Campus)

Oxford, Ohio 45056

Fall 1971

Students	Faculty	Ratio	Faculty Load
12,350	570	21.7:1	No standard

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	5%

Remarks

Very few large classes, only five with more than 200 students.

Many sections with 50-100 students, lower and upper-division courses.

Undergraduate courses enrolling fewer than 10 students, graduate courses with fewer than 5 students are not offered in two consecutive years.

For Additional Information

Dr. David Brown, Executive Vice President for Academic Affairs

MINOT STATE COLLEGE

Minot, North Dakota 58701

Fall 1970

Students	Faculty	Ratio	Faculty Load
3,016	140	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	Negligible

Remarks

Across-the-board increase in class sizes due to 15% increase in enrollments in two consecutive years, 1969-70 and 1970-71, with no increase in appropriations.

Ratio somewhat lower in 1971-72; biennial Legislature increased appropriations.

For Additional Information

Mr. Donald Peterson, Registrar

MISSISSIPPI COLLEGE

Clinton, Mississippi 39056

Fall 1971

Students	Faculty	Ratio	Faculty Load
1,918	89	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Master's Degree	10%

Remarks

In 1965 larger classes were initiated to cut costs, relatively high ratio since then.

Lecture classes, 100-200 students in history, sociology, psychology, Bible; classes of 50-100 in literature, business, education, math, biology.

Faculty members teaching large lecture classes are given double-teaching hours credit.

For Additional Information

Dr. Charles E. Martin, Academic Vice President

MORRIS HARVEY COLLEGE

Charleston, West Virginia 25304

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,121	106	20.0:1	11.4 hours (average)*

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks

Largest lecture classes: Music Appreciation, 163 students; Fundamental Social Problems, 379 students.

A few other large lecture classes in physical and biological sciences and General Education.

Largest class in social sciences, 66 students.

Commercial TV and radio, degree-credit programs; students required to be tested on campus three times a semester; 118 passed courses in Fall 1971, 210 in Spring 1972.

*May be required to teach 15 hours.

For Additional Information

Dr. James W. Rowley, Academic Dean

NEW MEXICO HIGHLANDS UNIVERSITY

Las Vegas, New Mexico 87701

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,355	103	22.9:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	6%

Remarks

New Mexico Board of Educational Finance has established a faculty-position ratio of 24:1.

Large classes in both lower-and upper-division courses.

Improved instructional methods — use of slides, overhead projectors, film strips, and other audio-visual material; method of instruction makes a difference.

Ratio up from 20.6:1 in Fall 1970.

For Additional Information

Mr. J. H. Elliott, Registrar and Director of Admissions

NEWARK STATE COLLEGE

Union, New Jersey 07083

Fall 1970

Students	Faculty	Ratio	Faculty Load
7,459	354	21.1:1	Undergraduate: 12 hours Graduate: 10 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

State has a 16:1 student/faculty funding ratio.

Includes evening session which was self supporting until 1971-72 when partially taken over by State.

Ratio relatively stable.

For Additional Information

Mr. John S. Korley, Vice President for Finance

NICHOLLS STATE UNIVERSITY

Thibodaux, Louisiana 70301 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
4,391	174	25.2:1	12-15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	No Information

Remarks

Level with faculty about financial problems; no increase in faculty in 2 years; not filling vacant positions; enrollments increasing rapidly.

Consolidating lower-division lecture sections across the board.

Auditoriums hold 900, 400, 300 students.

Audio-visual lectures and labs (no TV) in natural sciences; use good instructors; physics class has 175 students.

Quality not visibly affected in large versus small classes, surveyed results in earth science.

For Additional Information

Dr. O. E. Lovell, Jr., Dean of Academic Affairs

NORTH ADAMS STATE COLLEGE

North Adams, Massachusetts 01247 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
1,501*	63*	23.8:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment*
State	Master's Degree	Negligible

Remarks

Consolidated multiple sections into large lectures with small discussion groups.

Average class size, 27 students (excluding laboratory, student teaching, and physical education).

Ratio may be higher next year with a possible freeze on faculty positions while enrollments are growing rapidly.

*Students include approximately 250 in evening session; regular faculty is paid extra for evening courses on basis of rank, but at a substantially lower rate than for daytime classes. Graduate students enrolled in evening session only, on part-time basis.

For Additional Information

Mr. Thomas Schreder, Registrar

NORTHEASTERN STATE COLLEGE

Tahlequah, Oklahoma 74464 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
5,113	194	26.4:1	16.9 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	2%

Remarks

Past 8 years faculty has accepted larger classes in order to raise faculty salaries.

Class size range, 9-56 students; average class size, 26.6 students.

1971 ratio slightly lower due to decline in enrollments.

For Additional Information

Dean Elwin Fite, Dean of the College

NORTHERN ARIZONA UNIVERSITY

Flagstaff, Arizona 86001

Fall 1971

	Students	Faculty	Ratio	Faculty Load
University	8,234	377	21.8:1	12 hours
School of:				
Education	1,410	53	26.6:1	12 hours
Business Administration	806	32	25.2:1	12 hours
Arts and Sciences	4,069	178	22.9:1	12 hours
Creative Arts	1,091	51	21.4:1	12 hours

Type of Institution
State

Highest Offering
Doctoral Degree*

Graduate Enrollment
7% (University)

Remarks

Board of Regents allots *new* faculty positions on basis of 22:1 ratio.

Large class sections in lower and upper divisions; some upper-division classes have 65-75 students.

Unable to hire new faculty because of budget restrictions; enrollments growing rapidly.

Quality of learning not impaired but poor students may not be getting as much as they should. Good students appear to do as well as similar students at universities with lower ratios.

*University. Not all Schools offer doctoral degree.

For Additional Information

Dr. Paul Stasky, Director of Institutional Research
Dr. William R. Gable, Executive Director, Arizona Board of Regents, Phoenix

NORTHWESTERN STATE COLLEGE

Alva, Oklahoma 73717

Fall 1971

Students	Faculty	Ratio	Faculty Load
1,958	94	20.8:1	17.1 hours

Type of Institution
State

Highest Offering
Master's Degree

Graduate Enrollment
Negligible

Remarks

Class size range, 5-48 students; average class size, 22.8 students.

Ratio has varied from year to year because of continual growth.

For Additional Information

Dr. Fred R. Lawson, Dean of Instruction

OGLETHORPE UNIVERSITY

Atlanta, Georgia 30319

Fall 1970

Students	Faculty	Ratio	Faculty Load
1,015	33	30.8:1	12 hours

Type of Institution
Private

Highest Offering
Bachelor's Degree

Graduate Enrollment
None

Remarks

Hire faculty members who are willing to teach large classes.

70% of full-time teachers have Ph.D.'s.

No auditorium classes.

For Additional Information

Dean G. Malcolm Amerson, Registrar

OKLAHOMA CHRISTIAN COLLEGE

Oklahoma City, Oklahoma 73111 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
1,132	35	32.3:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks

Established a Learning Center in 1965.

Average class size, 26.5 students; 10 classes, 101-200 students; 4 classes, 201 students or more.

Ratio was 31.1:1 in Fall 1970; have not hired faculty to keep up with increase in enrollments.

For Additional Information

Dr. R. S. North, Dean of College

OKLAHOMA STATE UNIVERSITY

Stillwater, Oklahoma 74704 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
17,078	843	20.3:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	8%

Remarks

Few very large classes; largest, 161 students.

Average class size: lower division, 38.6 students; upper division, 27.9 students; graduate division, 7.4 students; over-all, 26.1 students.

Try to keep all classes full; cancel small classes.

Extensive use of graduate assistants keeps ratio from being 27:1.

For Additional Information

Dr. James H. Boggs, Vice President for Academic Affairs

PAN AMERICAN UNIVERSITY

Edinburg, Texas 78539 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
5,290	201	26.3:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	3%

Remarks

No exceptionally large classes; general lecture sections, 40-45 students.

For Additional Information

Dr. J. C. Nichols, Vice President for Academic Affairs

PERU STATE COLLEGE

Peru, Nebraska 68421

Fall 1971

Students	Faculty	Ratio	Faculty Load
936	43	21.8:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Largest classes in general requirement subjects, 100-200 students.

Average class size, 25-30 students; combine small sections.

Cut back on faculty.

For Additional Information

Dr. Max Smith, Acting President

PLYMOUTH STATE COLLEGE

Plymouth, New Hampshire 03264

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,230	111	20.1:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

A few large lecture classes, up to 150 students, with discussion groups of 12 students.

Large classes, taught by good teachers, can be handled effectively; a Calculus class of 90 students taught by department head.

For Additional Information

Dr. John C. Foley, Dean of the College

ROBERT MORRIS COLLEGE

Pittsburgh, Pennsylvania 15219

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,494	110	31.8:1	15 hours (maximum)

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks

Large lecture classes, up to 100 students.

Average class size, 30-40 students.

No classes taught entirely by TV and other audio-visual aids; a Learning Resources Center is a full department which advises faculty on the supplementary use of audiovisual materials.

Primarily a college of business administration with liberal arts and nursing programs in the junior college division, but only business courses in the senior college division.

For Additional Information

Dean John L. Bassett, Dean of the College

ROGER WILLIAMS COLLEGE

Bristol, Rhode Island 02809 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
2,157	97	22.2:1	16 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks

A few classes have 200 students; psychology classes are largest; languages have smallest classes, phasing out French.

Founded in 1956, always had about same ratio.

For Additional Information

Dr. Barbara Uehling, Academic Dean of the College

ST. CLOUD STATE COLLEGE

St. Cloud, Minnesota 56301 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
8,770	407	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	4%

Remarks

Appropriations allocated on basis of credit hours generated; 19:1 position ratio at undergraduate level, 13:1 at graduate level, but these ratios include service and support positions.

General studies courses for freshmen (geography, social sciences, etc.) have up to 250 students.

General studies courses have 37.0:1 ratio; upper-division courses, 18.6:1 ratio.

Closed-circuit TV used for demonstrations.

Developing a Mass Media Department to include journalism, TV, radio.

For Additional Information

Dr. P. E. Ingwell, Director of Institutional Research

SALEM COLLEGE

Salem, West Virginia 26426 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
1,409	69	20.4:1	12 hours (average)

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks

Increased number of classes with 26-50 students.

Limit number of classes below 10 students, normally one per semester for each department.

Class size range, 8-90 students; average class size, 26 students.

Ratio increased from 18.4:1 in 1970.

For Additional Information

Dr. Wayne H. England, Dean of the College

SAM HOUSTON STATE UNIVERSITY

Huntsville, Texas 77340

Fall 1971

Students	Faculty	Ratio	Faculty Load
9,429	347	27.2:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	15%

Remarks

Level with faculty applicants that large classes are necessary, but give them plenty of help.

Hire "master teachers" at high salaries for large lecture classes, up to 150 students; teaching assistants handle paper work and discussion sections. Every student at whatever level is entitled to take courses taught by "master teachers".

"Teaching institution".

Lower-division class sizes: history, up to 150 students; science, up to 100 students. Some large upper-division classes: up to 65 in English.

For Additional Information

Dr. R. G. Brooks, Vice President, Academic Affairs and Dean of Faculties

SAVANNAH STATE COLLEGE

Savannah, Georgia 31404

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,728	127	21.5:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	6%

Remarks

No information on procedures to achieve ratio or class size.

For Additional Information

Dr. Thomas Byers, Dean of Faculty

SHEPHERD COLLEGE

Shepherdstown, West Virginia 25443

Fall 1971

Students	Faculty	Ratio	Faculty Load
1,918	88	21.8:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Largest classes, 45-48 students; very few under 10 students; average class size, 28 students.

For Additional Information

Mr. G. Norris Rath, Director of Institutional Studies

SOUTHEASTERN STATE COLLEGE

Durant, Oklahoma 74701

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,189	136	23.4:1	13.1 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	6%

Remarks

Fastest growing state college in Oklahoma, had 20% increase in enrollments in each of past 3 years, coupled with a budget freeze.

No exceptionally large classes, largest classroom seats 60 students.

Class size range, 3-53 students; average class size, 21.6 students.

Audio-visual aids used extensively. Exploring establishment of a Learning Center, already initiated in physical sciences with tapes, computer programming, etc.

Project a 25:1 ratio in Fall 1972.

For Additional Information

Dr. Ernest Sturch, Jr., Dean of Instruction

SOUTHWEST MISSOURI STATE COLLEGE

Springfield, Missouri 65802

Fall 1971

Students	Faculty	Ratio	Faculty Load
8,556	373	22.9:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	3%

Remarks

Missouri Commission on Higher Education has established a 22:1 faculty-position ratio for lower division, 18:1 for upper division, 12:1 for graduate school as basis for appropriating money.

Largest classes in business, up to 150 students; also large classes in biology, chemistry, art, history.

Ratio up from 20.3:1 in 1970 due to 10% increase in enrollment; not able to hire faculty to keep up; hired some part-time faculty.

For Additional Information

Dr. Duane G. Meyer, Dean of Faculties and Provost

SOUTHWEST TEXAS STATE COLLEGE

San Marcos, Texas 78666

Fall 1971

Students	Faculty	Ratio	Faculty Load
10,521	405	26.0:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	Less than 10%

Remarks

State funds are allocated on basis of student-credit hours as recommended by the Coordinating Board, Texas College and University System; accordingly, lower-division courses are large in order to balance smaller upper-division classes.

One Fine Arts Appreciation course has 300 students; a few classes have 175-250 students; introductory philosophy is the largest.

Ratio increased from 24.5:1 in Fall 1970.

For Additional Information

Dean Alton G. Brieger, Registrar and Dean of Admissions

SOUTHWESTERN STATE COLLEGE

Weatherford, Oklahoma 73096

Fall 1971

Students	Faculty	Ratio	Faculty Load
5,047	239	21.1:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	6%

Remarks

Administrators teaching some classes.

No exceptionally large classes: lower division, 30-50 students; upper division, about 20 students.

For Additional Information

Dr. Louis H. Morris, Dean of Instruction

SUFFOLK UNIVERSITY (COLLEGE DIVISION)

Boston, Massachusetts 02114

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,664	129	20.7:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Master's Degree	33%

Remarks

"Teaching institution" with no publication required; urban-commuter school.

Classes limited to 175 students; average class size, 24 students; classrooms were designed on the basis of size recommendations by departments.

For Additional Information

Dr. Thomas Fullem, President

SUL ROSS UNIVERSITY

Alpine, Texas 79830

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,293	108	21.2:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	9%

Remarks

Very few large classes, 60-70 students; equalize class size, try to keep at about 35 students; cancel classes with fewer than 10 students.

Closed-circuit TV used as a teaching aid.

For Additional Information

Dr. Delbert A. Dyke, Vice President for Academic Affairs

TROY STATE UNIVERSITY

Troy, Alabama 36801

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,200	138	23.2:1	15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	Mostly in summer session

Remarks

"Teaching school".

No excessively large classes: largest, up to 70 students; 38 per cent, more than 30 students.

Avoid proliferation of courses.

No graduate assistants.

For Additional Information

Dr. William T. Wilks, Vice President for Academic Affairs

UNIVERSITY OF AKRON

Akron, Ohio 44304

Fall 1971

Students	Faculty	Ratio	Faculty Load
14,950	718	20.8:1	Undergraduate: 12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	9%

Remarks

Very large TV and lecture classes.

Undergraduate students required to take 30 per cent of their course work in General Studies courses, most of which are large lectures having 80-500 students (2 are TV courses).

Educational TV used in 7 courses. A compulsory social science course, *Institutions in the United States*, enrolls 3,000 students, is taught entirely by TV, with 4 showings on each scheduled class day. A TV psychology course has 2,000 students. Tapes are on file and TV sets are available throughout the university for re-viewing.

For Additional Information

Mr. Stuart M. Terrass, Assistant to the Director for Institutional Research

UNIVERSITY OF ARIZONA

Tucson, Arizona 85721

Fall 1971

	Students	Faculty	Ratio	Faculty Load
University	23,895*	1,084*	22.0:1	12 hours
College of:				
Business and Public Administration	2,413	88	27.4:1	12 hours
Liberal Arts	12,718	484	26.3:1	12 hours
leducation	2,260	90	25.1:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree**	23% (University)

Remarks

Board of Regents allots *new* faculty positions on basis of 22:1 ratio.

Large lecture classes in biology, psychology, anthropology, and philosophy, 500-1300 students.

Some upper-division courses have 65-75 students.

Quality of education appears not to be impaired so far as learning is concerned; most large lecture classes have small discussion groups.

*Does not include medical school.
**Graduate degrees are offered by the Graduate College.

For Additional Information

Mr. Arthur T. Grant, Director of Institutional Studies

UNIVERSITY OF ARKANSAS AT LITTLE ROCK

Little Rock, Arkansas 72204

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,406	156	21.8:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Most important practice is to closely involve departments in budget-making process, including assigning primary budget responsibility to each department and division on campus. Awareness of budgetary problems has led to more faculty taking the initiative in teaching larger classes.

Large lecture sections supplemented by small discussion groups and audio-visual techniques (i.e. single concept film loops, tapes, and other auto-tutorial methods.)

Very small classes combined for instructional purposes in some disciplines, including upper-division courses.

Ratio up from 20.2:1 in Fall 1970 due to substantial enrollment increase.

For Additional Information
Dr. James H. Fribourgh, Vice Chancellor

UNIVERSITY OF BALTIMORE

Baltimore, Maryland 21201

Fall 1970

Students	Faculty	Ratio	Faculty Load
3,031	108	28.1:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's and First Professional Degrees	No Information

Remarks

"Teaching school" which has always maintained a high ratio in order to produce adequate income while keeping tuition low.

Optimum class size, 55, 45, 35, or 25 students depending upon discipline; minimum class size, including upper-division seminars, 15 students.

For Additional Information
Mr. Robert Fudge, Office of the President

UNIVERSITY OF DAYTON

Dayton, Ohio 45409

Fall 1971

Students	Faculty	Ratio	Faculty Load
8,195	410	20.0:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Doctoral Degree	9%

Remarks

Reduced faculty from 449 in Fall 1970.

Large lecture classes: 2 classes, over 200 students; 8 classes, 100-200 students; 90 classes, 50-100 students. These account for slightly more than 5 per cent of all classes.

Average class size, 24 students; check closely on class size; eliminate or consolidate small classes.

For Additional Information
Dr. Wilfred J. Steiner, Director of Institutional Studies

UNIVERSITY OF MINNESOTA — COLLEGE OF LIBERAL ARTS

Minneapolis, Minnesota 55455 **1971-1972**

Students	Faculty	Ratio	Faculty Load
19,572	859	22.8:1	No standard

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	10%

Remarks

Very large lecture classes, a few with thousands, many with hundreds of students.

Average class size: lower division, 39 students; upper division, 28 students; over-all, 31.3 students.

Closed-circuit TV used for large, introductory courses.

Ratio has increased steadily due to budget restrictions.

For Additional Information

Mr. David J. Berg, Director, Budget Planning and Information Services

UNIVERSITY OF MINNESOTA

Morris, Minnesota 56267 **1971-1972**

Students	Faculty	Ratio	Faculty Load
1,832	80	22.9:1	No standard

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks

Average class size: lower division, 37 students; upper division, 21 students; over-all, 29.0 students.

Ratio has increased steadily due to budget restrictions.

For Additional Information

Mr. David J. Berg, Director, Budget Planning and Information Services, University of Minneapolis, Minneapolis, Minnesota

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado 80631 **1971-1972**

Students	Faculty	Ratio	Faculty Load
11,711	506	23.1:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	13%

Remarks

Has not had adequate funding from Legislature.

Level with faculty as to financial pinch; run classes close to a formula and ask department heads to fill classrooms whenever feasible.

Not filling vacant faculty positions.

Large lecture classes, 50-200 students.

For Additional Information

Dr. George Leach, Assistant Academic Vice President

UNIVERSITY OF NORTHERN IOWA

Cedar Falls, Iowa 50613

Fall 1971

Students	Faculty	Ratio	Faculty Load
9,605	446	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's and Education Specialist Degrees	10%

Remarks

General education program further restructured last year to meet changing student needs; increased student interest in sociology, anthropology, and business courses.

Large lecture classes in some disciplines; largest class (250 students) in the humanities, exceptionally good lecture, good instructor important for large classes.

50 per cent of classes have more than 25 students.

Closed-circuit TV satisfactory in mathematics and the physical sciences, except earth science.

For Additional Information

Mr. Merrill F. Fink, Associate Registrar

UNIVERSITY OF PITTSBURGH — FACULTY OF ARTS AND SCIENCES AND SCHOOL OF GENERAL STUDIES

Pittsburgh, Pennsylvania 15213

1971-1972

Students	Faculty	Ratio	Faculty Load
12,367	594	20.8:1	9 hours

Type of Institution	Highest Offering	Graduate Enrollment
State related	Doctoral Degree	11%

Remarks

Most important factor in achieving present ratio was to level with faculty in 1965-66 on financial crisis; agreed to larger classes.

Largest classes (200 students) in political science and sociology taught by senior faculty, supplemented by recitation groups taught by junior faculty.

Use audio-tape in biology; little use of TV.

Ratio has increased from 18:1 in 1968-69; high quality has been maintained.

For Additional Information

Dr. Arlon E. Elser, Vice Chancellor, Planning and Budget

UNIVERSITY OF PITTSBURGH AT JOHNSTOWN

Johnstown, Pennsylvania 15904

Fall 1971

Students	Faculty	Ratio	Faculty Load
2,016	83	24.3:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State related	Bachelor's Degree	None

Remarks

Class size range, 9 - 57 students; average class size, excluding labs, 32 students.

Ratio down from 27.5:1 in 1970, due to decline in enrollments and addition of two faculty members.

For Additional Information

Dr. Arlon E. Elser, Vice Chancellor, Planning and Budget, University of Pittsburgh, Pittsburgh, Pennsylvania

UNIVERSITY OF SOUTH FLORIDA

Tampa, Florida 33620 — **1971-1972**

Students	Faculty	Ratio	Faculty Load
16,675	776	21.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Doctoral Degree	16%

Remarks
System-wide productivity standards applied by discipline category and level of instruction in generating faculty positions.

For Additional Information
Dr. C.J. Carter, Associate Director, State University System, Tallahassee, Florida

UNIVERSITY OF TAMPA

Tampa, Florida 33606 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
2,219	108	20.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private	Bachelor's Degree	None

Remarks
Largest classes in business and economics with a 60:1 ratio; other large classes in history, psychology, sociology, geography, political science, natural sciences.

For Additional Information
Dean Charles Hyde, Associate Dean of Faculty

UNIVERSITY OF TEXAS AT EL PASO

El Paso, Texas 79999 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
9,529	397	24.0:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks
Not hiring new faculty next year; budget crunch; enrollment declining.

For Additional Information
Mrs. Jamie Bowen, Office of Institutional Studies

UNIVERSITY OF WISCONSIN - LA CROSSE

La Crosse, Wisconsin 54601

Fall 1970

Students	Faculty	Ratio	Faculty Load
6,653	327	20.3:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	5%

Remarks

Austerity program since 1968-69 combined with projected leveling off in enrollments caused LaCrosse to hold in reserve a substantial number of faculty positions as a hedge against possible requests to return "forced savings" to the central budget in Madison.

To provide teaching faculty for additional upper-division and graduate courses, lower-division class sizes were increased and large lectures extensively used in art, biology, chemistry, English, history, mass communications, math, psychology and sociology/anthropology.

For Additional Information

Dr. Maurice O. Graff, Vice Chancellor

WASHBURN UNIVERSITY

Topeka, Kansas 66621

Fall 1971

Students	Faculty	Ratio	Faculty Load
3,910*	176*	22.2:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Local	Master's Degree	Negligible

Remarks

No exceptionally large classes; average class size, 24 students.

*Excludes Law School

For Additional Information

Mr. Irvin L. Luthi, Registrar

WAYNE STATE COLLEGE

Wayne, Nebraska 68787

Fall 1970

Students	Faculty	Ratio	Faculty Load
2,725	120	22.7:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	Mostly in summer session

Remarks

Cut in appropriations coupled with enrollment increase prohibited adding new faculty.

Not filling faculty vacancies, or hiring part-time faculty.

Largest classes in social sciences and psychology, a very few up to 200 students.

For Additional Information

Dr. Stanley E. Wills, Registrar

WEBER STATE COLLEGE

Ogden, Utah 84403 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
6,479	307	21.1:1	9-15 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Bachelor's Degree	None

Remarks
Class size range, 8-90 students; average class size, 24 students; discourage classes under 10 students.

For Additional Information
Dr. Helmut P. Hofman, Academic Vice President

WILBERFORCE UNIVERSITY

Wilberforce, Ohio 45384 — **Fall 1970**

Students	Faculty	Ratio	Faculty Load
925*	46	20.1:1	12-14 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Bachelor's Degree	None

Remarks
Largest lecture classes, 75-80 students; only a dozen or so classes have less than 10 students.

*Total FTE enrollment in Fall 1970 was 1,182, but Wilberforce has a 4-month work program, with cooperative supervisors, so that only 925 students were on campus in Fall 1970.

For Additional Information
Mr. Robert M. Jones, Planning Coordinator

WINONA STATE COLLEGE

Winona, Minnesota 55987 — **Fall 1971**

Students	Faculty	Ratio	Faculty Load
3,776	178	21.2:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	2%

Remarks
Some allotted faculty positions have been used to fill administrative and library needs because of insufficient funding for these positions.

Classes generally have 20-50 students. One large class (biology) has 120 students.

Small classes cancelled.

For Additional Information
Dr. Warren Marley, Professor of Business Education and Office Administration

WRIGHT STATE UNIVERSITY (Main Campus)

Fairborn, Ohio 45324

Fall 1971

Students	Faculty	Ratio	Faculty Load
7,468	329	22.7:1	8-12 hours

Type of Institution	Highest Offering	Graduate Enrollment
State	Master's Degree	8%

Remarks

Use different devices to measure faculty workload; don't tell department chairmen how large classes should be, but do tell them how large they should be to be profitable; each department is supposed to pull its own weight.

Large lecture classes: psychology, biology, history, geology, chemistry (250-500 students); education, math (over 100 students).

Lightly populated classes are not offered every quarter.

Grant credit by examination.

For Additional Information

Mr. David S. Atwater, Director of Institutional Research

XAVIER UNIVERSITY

Cincinnati, Ohio 45207

Fall 1971

Students	Faculty	Ratio	Faculty Load
4,214	179	23.5:1	12 hours

Type of Institution	Highest Offering	Graduate Enrollment
Private, church related	Master's Degree	39%

Remarks

Not filling faculty vacancies.

Reduced credit hours required for graduation from 128 to 120 about three years ago.

Try to keep class size at about 35 students; 50 per cent of classes range from 21-50 students.

Ratio up from 18:1 in Fall 1970.

For Additional Information

Mr. Thomas Fischer, Assistant Comptroller

APPENDIX III — THE EFFECT ON THE BUDGET OF DIFFERENT STUDENT/FACULTY RATIOS

In their report for the Carnegie Commission on Higher Education, Howard R. Bowen and Gordon K. Douglass examined the question of how an independent liberal arts college might provide education of high quality with the least average expenditure per student enrolled. They prepared models which assumed a number of combinations of curricula, teaching loads, and student/faculty ratios. The models include possibilities ranging from "high proliferation of courses with low teaching loads" to "low proliferation of courses with high teaching loads."

One conclusion from the models relevant to the Academy's study is that the instructional budget might be reduced by as much as 55 percent by changing the combination of courses and teaching loads, and a high quality program could still be maintained. A comparison of a number of possibilities is in the table that follows:

TABLE E

Changes in the Budget for Instruction that Might Be Achieved by Varying the Curriculum and the Student/Faculty Ratio in a Liberal Arts College with 1,200 Students

Curriculum Load Assumed	Number of Faculty Required	Student/ Faculty Ratio	Estimated Budget for Instruction Required	Reduction from the Budget Cost of $3,206,000 that Might be Achieved by Reducing Proliferation and Increasing the Student/Faculty Ratio	
				Amount	Per cent
High proliferation*					
Light teaching load[a]	150	8:1	$3,206,000	-	-
Moderate teaching load[b]	120	10:1	2,683,000	$ 523,000	16%
Heavy teaching load[c]	100	12:1	2,332,000	874,000	27%
Moderate proliferation**					
Light teaching load[a]	129	9:1	$2,714,000	$ 492,000	15%
Moderate teaching load[b]	100	12:1	2,280,000	926,000	29%
Heavy teaching load[c]	83	14:1	1,985,000	1,221,000	38%
Low proliferation***					
Light teaching load[a]	86	14:1	$1,923,000	$1,283,000	40%
Moderate teaching load[b]	68	18:1	1,628,000	1,578,000	49%
Heavy teaching load[c]	56	21:1	1,430,000	1,776,000	55%

Source: Bowen, Howard R. and Gordon K. Douglass, *Efficiency in Liberal Education:* McGraw-Hill Book Company, New York, 1971, pp. 96-7; also Bowen, Howard R., "Can Higher Education Become More Efficient?" *Educational Record*, Summer 1972, p. 196.

General Note: All figures have been rounded for convenience in presentation.
Other Notes:

* Average class size 17 students; program of 450 courses and 570 classes.
** Average class size 20 students; program of 335 courses and 476 classes.
*** Average class size 30 students; program of 225 courses and 320 classes.
[a] Four lecture-discussion classes or three laboratory or studio classes per year.
[b] Five lecture-discussion classes or four laboratory or studio classes per year.
[c] Six lecture-discussion classes of five laboratory or studio classes per year.

As elsewhere in this study the Academy moved from models calculated by scholars to actual situations. Projection data examined from 40 private liberal arts colleges and universities in Ohio, for example, showed that by 1974-75 these colleges expect that their:

Full-time equivalent enrollment will be	80,000
Full-time equivalent teaching faculty will be	5,100
Composite student/faculty ratio will be	15.7 to 1
Aggregate budget for instruction and departmental research will be	$113,557,000
Overall deficit will be	$ 2,535,000
Deficit as a percentage of aggregate instructional budget will be	2.2%

If other factors at the colleges did not vary from the projections already made, changes in the student-faculty ratio alone would provide the following composite projections for 1974-75 for instruction:

TABLE F
Changes in 1974-75 Budget Projections
for 40 Ohio Colleges that Might Be
Achieved by Increasing the Student/Faculty Ratio

Ratios	Budget for Instruction	Reductions from Budget Projections of $113,557,000 that Might Be Achieved by Increasing Student-Faculty Ratio	
		Amount	Per cent
Actual projection			
15.7 to 1	$113,557,000		
Alternative possibilities			
16 to 1	$111,330,000	$ 2,227,000	2%
17 to 1	104,784,000	8,773,000	8%
18 to 1	98,950,000	14,607,000	13%
20 to 1	89,064,000	24,493,000	22%
22 to 1	80,959,000	32,598,000	29%
25 to 1	71,251,000	42,306,000	37%

The calculations on possible reductions in institutional budgets are obviously theoretical, inasmuch as a substantial change in student/faculty ratios is likely to involve other changes on campus. The figures are illustrative, however, of the high leverage that changes in student/faculty ratios would have on the instructional budgets of colleges and universities and on their deficits.

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